

DRILL HOLES

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PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal at the intersection of MD 187 (Old Georgetown Rd) and Rock Spring Drive in Montgomery County. The Wildwood Manor Shopping Center driveway on the east leg of this intersection is to be widened requiring the relocation of pedestrian equipment. The pedestrian phases across the south and east legs shall be upgraded to audible pushbuttons. A concurrent eastbound right turn phase shall be added during this modification. MD 187 (Old Georgetown Rd) is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA six-phase, semi-actuated mode, with the MD 187 (Old Georgetown Rd) approaches running concurrently. The Exclusive left turn phase for the southbound approach of MD 187 (Old Georgetown Rd) shall continue to operate. The Exclusive left turn phase for the northbound approach of MD 187 (Old Georgetown Rd) shall continue to operate. The pedestrian phase on recall across Wildwood Manor Shopping Driveway shall now be a Countdown pedestrian phase with audible pushbuttons on recall. The pedestrian phase across the south leg of MD 187 (Old Georgetown Rd) shall now be a Countdown pedestrian phase with audible pushbutton actuation. The Countdown pedestrian phase across Rock Spring Drive on recall shall remain in operation. Far-side sampling stations via video camera detection shall remain in operation for all both legs of MD 187 (Old Georgetown Rd) and the Rock Spring Drive leg of the intersection. The Rock Spring Drive / Wildwood Manor Shopping Driveway approaches shall continue to run as a side street split phase. A new eastbound right turn concurrent phase on Rock Spring Drive shall be provided.
- The existing full-traffic-actuated, eight-phase controller with video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.
- Montgomery County Signal Shop shall install APS control unit into controller cabinet. The APS push buttons should be delivered to Keith Lord at the Montgomery County Technical Center for programming at least two weeks prior to the beginning of work.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by Montgomery County Forces. Contact Kamal Hamud at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- APS will function as follows:
TO CROSS OLD GEORGETOWN ROAD
 - When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message "Wait to cross Old Georgetown at Rock Spring and Shopping Center."
 - When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.TO CROSS SHOPPING CENTER DRIVEWAY
 - When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message "Wait to cross Shopping Center at Old Georgetown."
 - When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

The contacts for Montgomery County and SHA are as follows:

Ms. Anyesha Mookherjee Assistant District Engineer - Traffic Phone: (301) 513-7318	Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone: (410) 787-7630	Mr. Mike Kinney Mont. County Traffic 240-777-8760
Mr. Vernon Stinnett Assistant District Engineer - Maintenance Phone: (301) 513-7304	Mr. Keith Lord Signal Shop (Mont Co.) 301-674-8965	Mr. Kamal Hamud Mont. County TMC Center 240-777-8761
Mr. Victor Grafton Assistant District Engineer - Utility Phone: (301) 513-7350	Mr. Sonny Bailey Manager, Sign Shop Operations 410-787-7670	

EQUIPMENT LIST

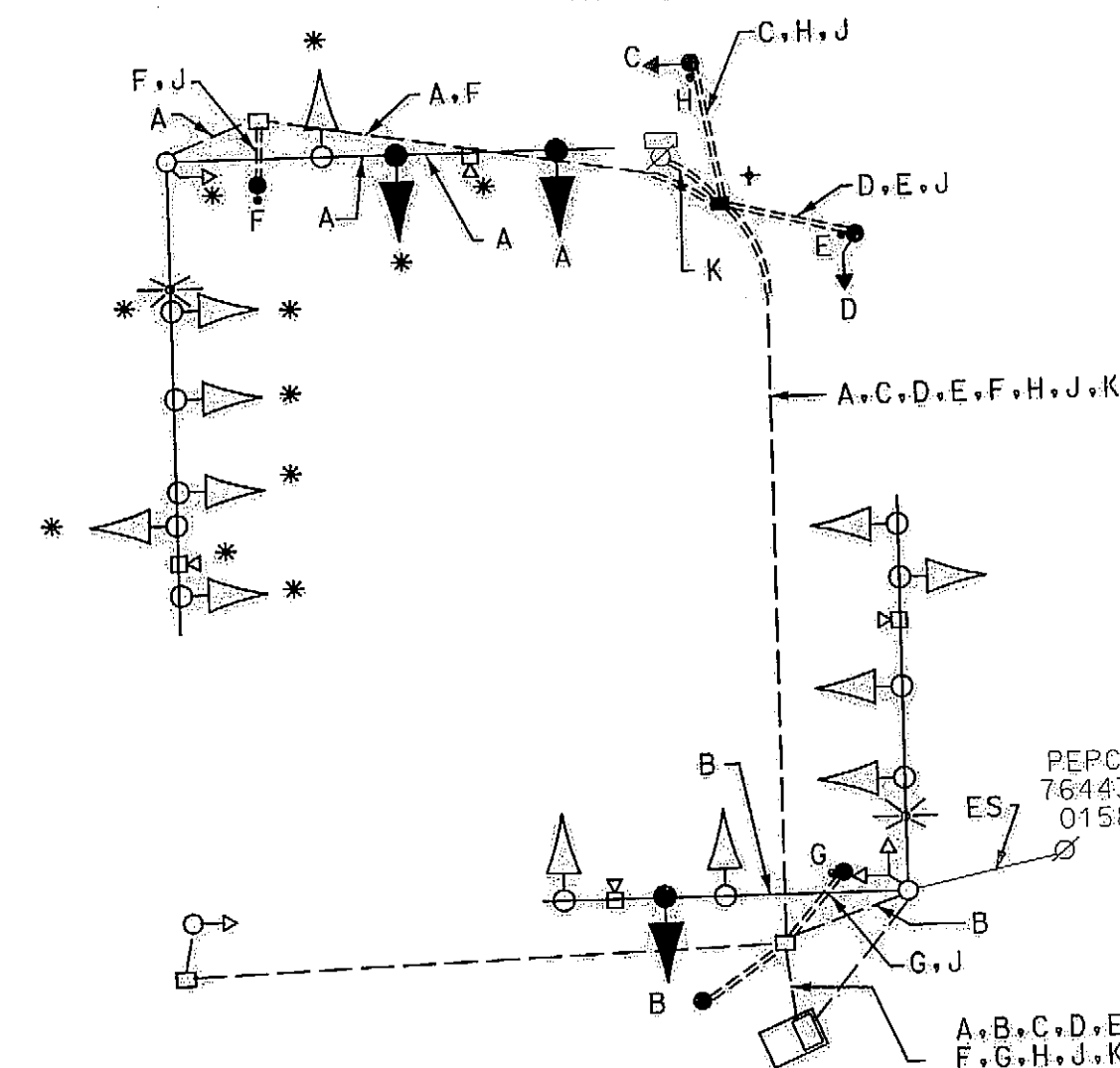
A. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NUMBER	DESCRIPTION	QUANTITY
814	16", one-way, LED (DW, W) symbolic pedestrian signal head with adjustable bracket for pole mounting and outaway visors. (Countdown Display)	2 EA
814	12", one-way, four-section (R,Y,G,GA) LED traffic signal head modules.	8 EA
814	12", one-way, five-section (R,Y,YA,G,GA) LED traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.	1 EA
205	Test pit excavation.	5 C.Y.
206	Remove concrete sidewalk	380 S.F.
610	4" concrete sidewalk.	400 S.F.
	Standard type A combination curb and gutter 12" gutter pan 8" depth.	85 L.F.
	Remove curb and gutter.	50 L.F.
801	Furnish and install concrete for signal foundation.	2 C.Y.
556	12" white heat applied permanent preformed thermoplastic pavement marking	835 L.F.
556	24" white heat applied permanent preformed thermoplastic pavement marking	80 L.F.
811	Furnish and install electrical handhole.	1 EA
	Remove existing pavement markings	380 L.F.
813	Ground mounted sheet aluminum signs to consist of: Pedestrian education R10-3(1) sign (9"x15"). (Note: Sign to read "PUSHBUTTON TO CROSS OLD GEORGETOWN RD".)	2 EA
	Pedestrian education R10-3(1) sign (9"x15"). (Note: Sign to read "PUSHBUTTON TO CROSS SHOPPING CENTER DRIVEWAY".)	2 EA
813	Overhead mounted sheet aluminum sign consisting of: R3-5R "RIGHT TURN ONLY" sign, (30" x 36"). S1-1 "SCHOOL" sign, (36" x 36") ground mounted. W16-7P(L) "arrow (symbolic)" diagonal sign, (15" x 21") pole mounted.	18.5 S.F.
		1 EA
		1 EA
		1 EA
805	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trench	65 L.F.
805	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trench	25 L.F.
810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.).	580 L.F.
810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).	360 L.F.
810	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).	425 L.F.
810	Furnish and install ground rod 3/4" x 10'.	1 EA
810	Furnish and install No. 6 AWG stranded bare copper ground wire.	60 L.F.
	Pull back and route existing signal equipment cable.	Lump Sum
	Relocate signal head.	1 EA
	Furnish and install 10' breakaway pedestal pole with transformer base.	2 EA
	Furnish and install 5' breakaway pedestal pole with transformer base.	2 EA
	Remove and dispose of existing signal equipment and material.	LUMP SUM
	Detectable warning system (truncated domes).	50 SF
	Audible/tactile pedestrian pushbutton station & signs.	4 EA
556	Furnish and install heat applied permanent preformed thermoplastic pavement marking arrow. (Right)	1 EA

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PHASE 2 & 5	←R→	←R→	←R→	G	G	←R→	←R→	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW
PED CLEAR / COUNTDOWN	←R→	←R→	←R→	G	G	←R→	←R→	G	G	R	R	R	R	R	R	FL/DW	W	W	FL/DW	DW	DW
2 & 5 CHANGE	←R→	←R→	←R→	Y	Y	←R→	←R→	Y	Y	R	R	R	R	R	R	DW	W	W	DW	DW	DW
PHASE 2 & 6	←G→	←G→	←G→	G	G	←R→	←R→	R	R	R	R	R/G	R	R	R	DW	FL/DW	FL/DW	DW	DW	DW
PED CLEAR / COUNTDOWN	←G→	←G→	←G→	G	G	←R→	←R→	R	R	R	R	R/Y	R	R	R	DW	DW	DW	DW	DW	DW
2 & 6 CHANGE	←Y→	←Y→	←Y→	G	G	←R→	←R→	R	R	R	R	R/Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	←R→	←R→	←R→	R	R	←R→	←R→	R	R	R	R	R	←G→	←G→	G	DW	DW	DW	DW	DW	DW
3 CHANGE	←R→	←R→	←R→	R	R	←R→	←R→	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←G→	←G→	G	R	R	R	DW	DW	DW	DW	DW	DW
4 CHANGE	←R→	←R→	←R→	R	R	←R→	←R→	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	W	W
PHASE 4 ALT	←R→	←R→	←R→	R	R	←R→	←R→	R	R	←G→	←G→	G	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW
PED CLEAR / COUNTDOWN	←R→	←R→	←R→	R	R	←R→	←R→	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
4 ALT CHANGE	←R→	←R→	←R→	R	R	←G→	←G→	G	G	R	R	R	R	R	R	W	DW	DW	W	DW	DW
PHASE 1 & 5	←R→	←R→	←R→	R	R	←Y→	←Y→	G	G	R	R	R	R	R	R	W	DW	DW	W	DW	DW
1 & 5 CHANGE	←R→	←R→	←R→	R	R	←Y→	←Y→	G	G	R	R	R	R	R	R	W	DW	DW	W	DW	DW
FLASHING OPERATION	FL/←R→	FL/←R→	FL/←R→	FL/Y	FL/Y	FL/←R→	FL/←R→	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY	
A	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B	CABLE (NO. 14 A.W.G.)
C	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
D	CABLE (NO. 14 A.W.G.)
E	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
K	EXISTING INTERCONNECT CABLE
*	USE EXISTING WIRING
ES	EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO
+	GROUND ROD

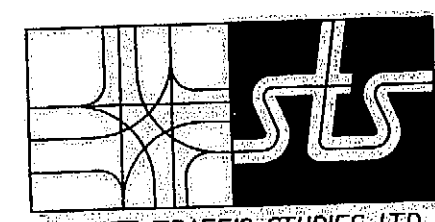
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

SHA

MD 187 (OLD GEORGETOWN RD) AND
ROCK SPRING DRIVE
OAKMONT, MARYLAND

GENERAL INFORMATION SHEET

SCALE	NONE	DATE	3/30/10	CONTRACT NO.	BW996M82
DESIGNED BY	R.R.Z.	COUNTY	MONTGOMERY		
DRAWN BY	R.C.	LOGMILE	15018703.51		
CHECKED BY		TMS NO.	K183		
F.A.P. NO.		TOD NO.			
TS NO.	4049B	DRAWING NO.	2 OF 2	SHEET NO.	OF



STREET TRAFFIC STUDIES, LTD.

400 Crain Hwy. NW
Glen Burnie, MD 21061Ph (410) 590-5500
Fax (410) 590-6637

57856IDEV12210.DGN

PLOTTER: BOWTIE/MS

FILE: 57856